



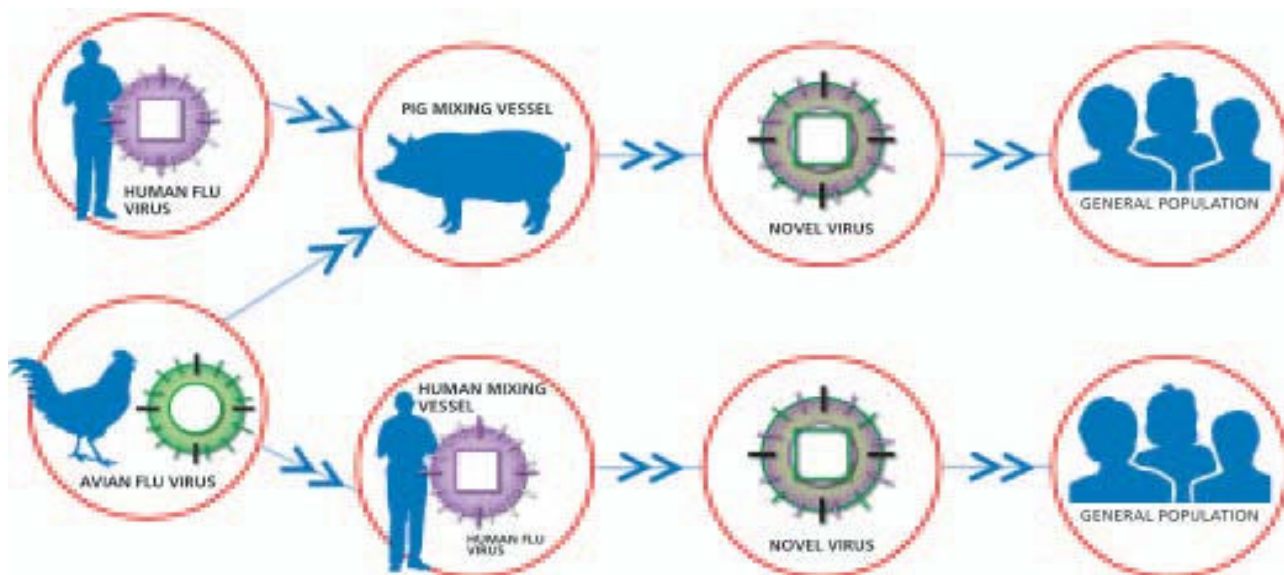
## Causes of Pandemic Influenza

### Fact Sheet the Public

#### What causes Pandemic Influenza?

Only type A influenza virus can cause a pandemic, because it is the only type that is found in both animals (pigs, birds, horses) and humans. Type A influenza is less genetically stable than type B. It is in a family of viruses that uses RNA to reproduce and viral RNA is notoriously fickle about swapping genetic material with other RNA that it meets. When this unpredictable swapping occurs between human flu and bird flu it leads to a new virus in a population that has not been exposed to it before. Our bodies will not know how to respond to this threat.

We used to think it took an animal like a pig to serve as the ‘mixing vessel’ for the avian flu and human flu. When, in 1997 in Hong Kong, experts learned that people can get avian influenza directly from birds, they realized that it is also possible for people to serve as ‘mixing vessels’ when an avian influenza strain infects a human who has a human flu virus at the same time.



This possibility that people could act as ‘mixing vessels’ has caused particular concern with the avian influenza A (H5N1) currently circulating in Asia. This strain of avian flu has demonstrated the ability to infect people. Experts fear that people infected with avian flu could also have human flu at the same time. This would allow the exchange of genes that could lead to the emergence of a pandemic strain.

While we typically think of this scenario playing out in Asia, it can occur anywhere birds and people come together. In the last few years, people have been infected with avian influenza viruses in Delaware, the Netherlands and the Fraser Valley of British Columbia.

Once the pandemic flu strain has established itself in humans, it is spread like any other flu.

Droplets are produced and spread by coughs and sneezing. These droplets are infectious in adults from 1 day prior to the onset of symptoms to about 5 days after onset. This means it will spread very easily.

Once the flu is in you, it takes about 1 to 4 days to become ill. Once you are ill, you experience the normal fever, aches, pains, cough and other symptoms associated with the regular flu.

With pandemics flu treatment options are limited. Vaccination is the preferred option, but the vaccine requires at least 5 months to be developed. Development depends on adequate seed stock to grow the virus and enough chicken eggs to grow the virus in.

**For more information on influenza:**

- Contact your local public health department. Check <http://www.malph.org/page.cfm/108/> for your jurisdiction. A list of local public health departments is also available at [http://www.michigan.gov/documents/June2003LHDLList\\_69658\\_7.pdf](http://www.michigan.gov/documents/June2003LHDLList_69658_7.pdf)
- Visit the Michigan Department of Community Health website: <http://www.michigan.gov/mdch>
- Visit: [www.pandemicflu.gov](http://www.pandemicflu.gov)
- Call the Centers for Disease Control and Prevention Public Response Service Hotline:  
English: 1-888-246-2675, Español: 1-888-246-2857, TTY: 1-866-874-2646